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INTRODUCTION

The references compiled in this bibliography represent the materials published in 1951 by the staff in the various divisions of the Bureau of State Services. Also included are references to materials published in 1950 which were not available for inclusion in the first issue, "Bibliography of Scientific Publications for 1950." Initially this series was begun upon recommendation of the Bureau Committee of Research Studies and Investigations.

The table of contents lists alphabetically the divisions reporting publications prepared under their direction. Within each division, the references are arranged alphabetically by senior author, except that publications of which the division is given as author are listed first. Each item is numbered consecutively for ease in consulting. The author index lists each name given as an author, followed by the consecutive number of the reference.

The cooperative aspect of the Bureau's activities is evident from the many publications authored by more than one individual. Joint authors who were employed in other divisions of the Public Health Service or outside the Service are not separately identified.

Washington, D. C.
July, 1952

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16. Abstracts The references compiled in this bibliography represent the materials published in 1951 by the staff in the various divisions of the Bureau of State Services. Those divisions include: Office of the Chief; divisions of administrative management, chronic disease and tuberculosis, dental public health, engineering resources, occupational health, public health education, public health nursing, sanitation, state grants, venereal disease, and water pollution control; Arctic Health Research Center; Communicable Disease Center; Environmental Health Center; and National Office of Vital Statistics. Approximately 490 items are included.			
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Office of the Chief

1. Hollis, M. D. Aims and objectives in environmental health. Am. J. Pub. Health 41:263-270, 1951.
Things to come in environmental health include a modern concept of environmental health and a realistic approach by the health services to defense activities.
2. ----- Environmental health; a critique. Pub. Health Rep. 66:400-409, 1951.
Review and criticism of environmental health activities, emphasizing the need for future development of rural sanitation.
3. ----- The need for and means of attaining uniformity in food sanitation regulations. J. Texas Pub. Health Assoc. 2:109-112, 1950.
Disease outbreaks caused by contaminated milk have declined, while those caused by other foods and utensils have increased. A program to reduce these outbreaks is offered, with suggestions for methods to fulfill this program.
4. ----- Water pollution abatement in the United States. Sew. & Indust. Wastes 23:89-94, 1951.
The water pollution problem in the United States indicates a need for investing a billion dollars a year for the next 10 years in plants for treating municipal sewage and industrial wastes.
5. Mountin, J. W. An opportunity for leadership. Pub. Health Rep. 66:129-131, 1951.
An editorial calling for a coordinated approach in the tuberculosis control program and pointing to the leadership opportunities inherent in such an approach.
6. ----- Changing patterns of State health services. Am. J. Pub. Health 41:516-521, 1951.
Reviews the changing character of health services provided by State health agencies in the decade from 1940 to 1950, based on a study of a 10-State sample.
7. ----- Community health services for older people. In Wilma Donahue and C. Tibbitts, ed. Growing in the older years. Univ. Michigan Press, Ann Arbor, Michigan. p. 71-83, 1951.
Discusses some steps the community can take to promote and develop health services for the aging.
8. ----- Health promotion in the older years. Mimeo., 14 p. Oct. 1951.
Reviews the health needs of older people in terms of what the public health agency and its professional staff can do toward meeting them.

9. ----- Introductory remarks to Montgomery County Institute on Aging. Montgomery County Institute on Aging Proc., issued by Steering Committee on Aging. Mimeo., p. 1-4 Apr. 1951.
A plea for community action toward meeting the varied needs of older people.
10. ----- Multiple screening and specialized programs. Pub. Health Rep. 65: 1359-1368, 1950. Reprint No. 3050.
Discusses the broad issues involved in multiple screening and their implications for other public health programs.
11. ----- Organizing for the newer public health programs. Pub. Health Nursing 42:562-567, 1950.
Discusses current health problems, the need to survey community resources and facilities, and the need for reorientation of thinking and reorganization of public health services to meet the needs of modern health services.
12. ----- Public health and the aging. Pub. Health Rep. 65:795-802, 1950. Reprint No. 3027.
Discusses the public health approach to the problems of aging by means of which health and productivity may be maintained and other needs of the aging may be met.
13. ----- Screening procedures to assess individual health status. Mimeo. 7 p. Sept. 1951.
A summary of recent PHS experience with several multiple screening projects and an analysis of the multiple screening technique as a case-finding device.
14. ----- The national health agency as a leavening influence. Canad. Pub. Health J. 42:261-268, 1951.
Discusses the role of the Federal health agency vis-a-vis State and local health departments and its contributions toward improving and strengthening community health programs.
15. ----- The public health problem of defense impact areas; report on inventory of health needs. Mimeo., 10 p. Nov. 1951.
Reports on the health problems found in Public Health Service surveys of defense impact areas and on some of the unmet health needs in these areas.
16. ----- and C. H. Greve. Public health areas and hospital facilities; a plan for coordination. USPHS Pub. 42, 119 p., 1950.
Presents a pattern for organizing a Nation-wide system of local health units, including estimates of basic staffing requirement and expenditures necessary to operate local health units under this system.

Division of Administrative Management

17. Meng, H. N. The problem of the position description. Personnel Admin. 14 (3):18-21, 1951.
A criticism of the traditional job description as a useful document for management purposes.

Arctic Health Research Center

18. Anderson, R. J., and E. T. Blomquist. Tuberculosis control; a total program. Pub. Health Rep. 66:132-138, 1951.
The major weakness of tuberculosis control in many localities results from (1) failure to provide all services needed for the tuberculous patient as a complete individual with social, financial, emotional, and vocational, as well as physical needs and problems, and (2) failure to make full use of such resources where they exist and to coordinate their activities for maximum benefit to the individual and his community. The well-planned community-wide X-ray survey with proper follow-up is cited as an example of what can be achieved through full integration of all interested persons and agencies.
19. Babero, B. B. Notes on the trematode genus Glypthelmins Stafford, 1905. Helminth Soc. Washington Proc. 18:103-106, 1951.
The trematode genus Glypthelmins is discussed. Two alternatives are suggested for correcting the systematics of this group. The review of the genus as given points out the controversial nature of this group.
20. ----- Rauschiella tineri, n. g., n. sp. A trematode (Plagiorchiinae) from a frog. J. Parasitol. 37:560-562, 1951.
A new genus and species is described (trematode). Glypthelmins repandum was removed from this genus and placed in Rauschiella.
21. Day, E. K. Sewage and waste disposal problems. Pub. Health Rep. 66: 922-928, 1951.
Discusses the problems involved in the design, construction and operation of community and single premise sewage collection, treatment, and disposal facilities in low temperature areas.
22. Erikson, H., P. F. Scholander, and L. Irving. Apparatus for complete volumetric recording of the respiratory gaseous exchange in man. Scand. J. Clin. & Lab. Inv. 3:228-233, 1951.
The apparatus gives continuous records of (1) ventilation and breathing, (2) periodic measurement of oxygen consumption and (3) a continuous record of the difference between oxygen consumed and carbon dioxide produced. It has been used for studies of basic patterns of human respiratory exchange in preparation for investigations in pathological conditions affecting circulation and respiration.

23. Fritz, M. H. Phlyctenular keratoconjunctivitis among Alaska natives. Am. J. Ophth. 34:177-184, 1951.
A statistical study of the appearance of phlyctenular keratoconjunctivitis among Alaska natives. The children of the Sheldon Jackson Junior College and Mt. Edgecumbe school of the Alaska Native Service and the children of the city of Sitka were studied. A definite correlation between a positive tuberculin test and the appearance of this disease in the eyes was elicited.
24. ----- Physician describes eye disease causing scarring of cornea; methods of care, prevention. Alaska's Health 9 (1 & 2):1, 1951.
Blindness in Alaska among so many natives had previously been ascribed to cataracts. This study shows that the disease is due to phlyctenular keratoconjunctivitis, which is an ocular allergic response on the part of the eye to tuberculo-protein.
25. ----- and P. Thygeson. Cortisone in the treatment of phlyctenular keratoconjunctivitis. Am. J. Ophth. 34:357-360, 1951.
By the use of 2.5 percent cortisone as drops in the eye, it was found that acute attacks of phlyctenular keratoconjunctivitis could be aborted. All uncomplicated attacks of this disease were stopped within two or three days, thus preventing scarring of the cornea that heretofore was the sequel of every acute attack of this disease, resulting finally in loss of vision of varying degrees.
26. ----- and P. Thygeson. Phlyctenular keratoconjunctivitis among Alaskan Indians and Eskimos. Pub. Health Rep. 66:934-939, 1951.
Discusses the nature of this disease among Alaskan native peoples and effectiveness of cortisone on active cases.
27. Frohne, W. C. Seasonal incidence of mosquitoes in the upper Cook Inlet, Alaska. Mosq. News 11:213-216, 1951.
Quantitative and qualitative data on the mosquitoes of pest importance in the upper Cook Inlet.
28. ----- and D. A. Sleeper. Reconnaissance of mosquitoes, punkies and black-flies in southeast Alaska. Mosq. News 11:209-213, 1951.
Check list of the biting Diptera of practical importance in southeast Alaska with notes on the habitats and habits of the commoner species.
29. ----- and R. B. Williams. Notes on snipe flies of the genus Symphoromyia in Alaska. Mosq. News 11 (1):32-33, 1951.
Calls attention to the practical importance as pests of certain snipe flies, but especially S. atripes, in Alaska and gives data on the habits of the adult female.
30. Gaub, W. H. An epidemic of typhoid fever at Spenard, Alaska. J. Lab. & Clin. Med. 37:931-935, 1951.
Account of origin, nature of, and treatment of an epidemic of typhoid fever occurring at Spenard, Alaska, during the months of March and April, 1950.

31. Haldeman, J. C. Facilities and opportunities for research at the Arctic Health Research Center. Pub. Health Rep. 66:941-944, 1951.
Describes physical facilities at Arctic Health Research Center with a brief review of current needs for health research in the Arctic.
32. ----- Problems of Alaskan Eskimos, Indians, Aleuts. Pub. Health Rep. 66: 912-917, 1951.
Discusses major public health problems among various population groups in Alaska.
33. Hitchcock, Dorothy J. Parasitological study on the Eskimos in the Kotzebue area of Alaska. J. Parasitol. 37:309-311, 1951.
Study to determine incidence of helminth and protozoan parasites of the Eskimos at Kotzebue. Four species of each were recorded, with Enterobius and Dipyllobothrium the important helminths.
34. Hock, R. J. The nature of the hibernation of bats. Federation Proc. 10 (Pt. 1):65, 1951.
Bats are considered distinct from other hibernators in that they do not require a long sequence of events to initiate hibernation. At any time they remain at rest, their body temperature and metabolism fall to appropriate levels.
35. ----- The metabolic rates and body temperatures of bats. Biol. Bull. 101:289-299, 1951.
Measurement of the metabolic rates and body temperatures of bats at rest reveal that these processes are directly dependent on the level of ambient temperature. It is concluded that bats do not possess thermoregulatory mechanisms that their diurnal variations of temperature cannot be distinguished from hibernation, and that they are, therefore, different from other hibernators.
36. Humes, A. G., and M. S. Wilson. The last copepodid instar of Diaptomus sanguineus Forbes (copepoda). J. Wash. Acad. Sc. 41:395-399, 1951.
The fifth copepodid (subadult) stages of both sexes of Diaptomus sanguineus are described and figured in detail and compared to the adults, which are also figured. Specimens studied were collected at Weston, Massachusetts.
37. Irving, L. Climatic adaptation in arctic and tropic animals. Pub. Health Rep. 66:939-941, 1951.
Summarizes the known adaptations of warm blooded animals to cold with a survey of new methods of study of these adaptations.
38. ----- Physiological adaptations to cold in arctic and tropic animals. Federation Proc. 10 (Pt. 1):543-545, 1951.
The existence of low temperatures was demonstrated in the extremities of some arctic animals and discussed as an adaptation to cold.
39. Rausch, R. Biotic interrelationships of helminth parasitism. Pub. Health Rep. 66:928-934, 1951.
General helminthological observations in Alaska. Special reference to

ecology, distribution, etc. of helminths. Also main points covered on hydatid disease, fish tapeworm, and trichinosis.

40. ----- Notes on the Nunamiut Eskimo and mammals of the Anaktuvuk Pass region, Brooks Range, Alaska. Arctic 4:147-195, 1951.
General observations on the Eskimo and on about 30 species of mammals found in the Brooks Range region. Details of ecology, relationships with man, etc. are included.
41. ----- Studien an der helminthenfauna von Alaska. IV. Haploparaxis galli n. sp. ein cestode aus dem schneehuhn, Lagopus rupestris (Gmelin). Ztschr. f. Parasitenkunde 15 (1):1-3, 1951.
A new cestode, Haploparaxis galli, is described from the rock ptarmigan, from the Brooks Range.
42. ----- Studies on the helminth fauna of Alaska. VII. On some helminths from arctic marmots with the description of Catenotaenia reggiae n. sp. (cestode: Anoplocephalidae). J. Parasitol. 37:415-418, 1951.
Describes a new species of Catenotaenia from a hoary marmot, Marmota caligata breweri, from the Brooks Range, with general remarks on other species.
43. ----- and B. Locker. Studies on the helminth fauna of Alaska. II. On some helminths parasitic in the sea otter, Enhydra lutris (L). Helminth Soc. Washington Proc. 18:77-81, 1951.
Five species of helminths are recorded for the first time from the sea otter. One is described as new.
44. ----- and E. L. Schiller. Hydatid disease (Echinococcosis) in Alaska and the importance of rodent intermediate hosts. Science 113:57-58, 1951.
Report of first observations on voles serving as intermediate host for Echinococcus, on St. Lawrence Island. Also observations on incidence in definitive and intermediate hosts, and on epidemiology.
45. ----- and H. J. Van Cleave. The acanthocephalan parasites of eider duck. Helminth Soc. Washington Proc. 18:81-84, 1951.
A coverage of all species of acanthocephala recorded from the eider ducks, with special reference to Alaska.
46. Schiller, E. L. Hymenolepis hopkinsi, n. sp; a cestode from the black duck. Am. Midland Naturalist 45:235-256, 1951.
Describes a new cestode from the black duck in Wisconsin.
47. ----- Studies on the helminth fauna of Alaska. I. Two new cestodes from Sabine's gull (Xema sabini). J. Parasitol. 37:266-272, 1951.
The description of two new species of cestodes of the genera Haploparaxis and Hymenolepis and some data on the incidence of cestode parasites in the Sabin's gull.
48. ----- Studies on the helminth fauna of Alaska. VI. The parasites of the emperor goose (Philacte canagica L.) with the description of Hymenolepis philactes, n. sp. J. Parasitol. 37:217-220, 1951.
A survey of the helminth parasites of the emperor goose and the

description of a new species of Hymenolepis.

49. ----- Studies on the helminth fauna of Alaska. VIII. Some cestode parasites of the Pacific Kittiwake (Rissa tridactyla Ridgway) with the description of Haploparaxis rissae n. sp. Helminth Soc. Washington Proc. 18:122-125, 1951.
A survey of the helminth parasites of the kittiwake, with the description of a new species of Haploparaxis.
50. Williams, R. W. Observations on the bionomics of Culicoides yukonensis Hoffman, with notes on C. Alaskensis Wirth and other species, at Valdez, Alaska, summer 1949. Ent. Soc. Am. Ann. 44:173-183, 1951.
51. ----- The immature stages of Culicoides tristriatulus Hoffman (Diptera, Heleidae). Ent. Soc. Am. Ann. 44:430-440, 1951.
52. Wilson, C. S. Control of Alaskan biting insects. Pub. Health Rep. 66: 917-922, 1951.
Describes the conditions that cause most of the control measures in use to be of the types based on local destruction of the adult insects; describes the measures used and some proposed for development.
53. Wilson, Mildred S. A new subgenus of Diaptomus (copepoda: Calanoida), including an Asiatic species and a new species from Alaska. J. Wash. Acad. Sc. 41:168-179, 1951.
A new subgenus (Nordodiaptomus) is proposed to include Diaptomus siberiensis (new name for D. rylovi Smirnov 1940) known from eastern Asia, and a new species, Diaptomus alaskaensis, from a mountain top pool on the Steese Highway near Circle, Alaska. The importance of these records as establishing another link between Asiatic and North American freshwater fauna is emphasized.
54. ----- and S. F. Light. Description of a new species of diaptomid copepod from Oregon. Am. Microscopical Soc. Tr. 70:25-30, 1951.
Describes Diaptomus hesperus, a new species, from a lake in the Willamette National Forest, Oregon, and outlines plans for proposed monograph of North American species of Diaptomus, of which approximately 60 species are now known.

Division of Chronic Disease and Tuberculosis

55. Division of Chronic Disease and Tuberculosis. What is a reportable case of tuberculosis? Pub. Health Rep. 66:1291-1294, 1951.
Presents the purposes of tuberculosis morbidity reporting and the definition of a "newly reported tuberculosis case," as prepared by the Committee and adopted by the State tuberculosis control officers and sanatorium directors.

56. Anderson, R. J. Research in mass radiography. Pub. Health Rep. 66: 851-852, 1951.
Discusses the need for further intensive research in mass radiography to increase scientific knowledge on the subject, so that all the advantages of the mass X-ray survey may be retained and its limitations minimized.
57. ----- The importance of tuberculosis control in national defense. Nat. Tuberc. Assoc. Tr., 1951. Reprint, 6 p.
Indicates the importance of intensifying efforts in tuberculosis control as a necessary contribution toward building up and maintaining national strength in the present emergency.
58. ----- X-ray in the diagnosis of tuberculosis. Life and Health 66 (12): 8-9, 21, 1951.
Illustrates in nontechnical language the scientific principle behind X-ray pictures and how they aid the physician in early diagnosis and prompt treatment of tuberculosis and other diseases.
59. ----- and E. T. Blomquist. Tuberculosis control; a total program. Pub. Health Rep. 66:132-138, 1951.
Stresses the role of the medical profession in public health in recognizing and helping the patient as a person. Points out the deficiencies in the present segmental approach to the problem of tuberculosis control. Offers a remedy in the form of centralized direction by the official health agency in coordinating the planning and action of the various participating agencies toward a more effective tuberculosis control program.
60. ----- and J. E. Perkins. Tuberculosis hospitals; need for hospital facilities. Architectural Record's Building Types Study No. 173, p. 135-136, 1951.
Outlines the encouraging progress made recently in providing an adequate supply of tuberculosis hospital beds. Warns of serious repercussions unless the number of hospital beds available for tuberculosis patients is increased substantially to meet the demands created by the greatly accelerated tuberculosis casefinding program.
61. Bates, L. E., T. Busk, and C. E. Palmer. Research contributions of BCG vaccination programs. II. Tuberculin sensitivity at different altitudes of residence. Pub. Health Rep. 66:1427-1442, 1951.
Presents results of serial tests with 1, 10, and 100 units of tuberculin at tea gardens located in a mountainous area near Darjeeling, India. The findings support the hypothesis of a non-specific agent producing reactions to high doses of tuberculin and suggest an antagonism between this agent and the tubercle bacillus resulting in diminished sensitivity when both are present.
62. Bickerstaff, H. J., G. W. Comstock, and M. H. Burke. Routine antenatal chest X-ray findings in patients drawn from a currently surveyed population. Am. J. Obst. & Gynec. 61:41-48, 1951.
Of all pregnant women routinely receiving a single microfilm of the

chest during a 3 year period following a community-wide X-ray survey, 4 percent were recalled for evaluation of some thoracic pathology. One in 255 women was found to have tuberculosis not previously known. Five persons with negative antenatal films developed tuberculosis postpartum. Cases discovered postpartum had a higher fatality rate. The value of routine antenatal X-ray is confirmed and the need for a supplementary postpartum examination is stressed.

63. Bloom, Sophia. Community-wide chest X-ray survey. III. Social work. Pub. Health Rep. 66:139-156, 1951.
Discusses the philosophy, structure, and services of social work in the organization and operation of surveys.
64. Caso, Elizabeth K. Dietary exhibits at Boston's Diabetes Fair. J. Am. Dietet. Assoc. 27:764, 1951.
Describes the organization of the diabetes dietary exhibits and the participation of the various hospitals.
65. Cagin, G. E., and B. D. Davis. Competition in the binding of long chain fatty acids and methyl orange to bovine serum albumin. J. Am. Chem. Soc. 73:3145, 1951.
Certain long chain anionic fatty acids have been found to compete with an anionic dye, methyl orange, for binding to serum albumin. Analysis of data throws some light on the nature of the sites and a protein molecule responsible for such binding.
66. Comstock, G. W., and M. H. Burke. Tuberculosis studies in Muscogee County, Georgia. III. Tuberculosis mortality following a community-wide X-ray survey. Pub. Health Rep. 66:695-711, 1951.
The tuberculosis mortality rates during a period of 3 1/2 years following a community-wide X-ray survey were about the same among persons surveyed and those not surveyed. The death rates for survey positive cases were very high, with the Negro rate four times that of white. In the survey negative cases the rates were low, but the Negro rate was 13 times that of the white. Several possible explanations for this situation are discussed.
67. Davis, B. D. Aromatic biosynthesis. I. The role of shikimic acid. J. Biol. Chem. 191:315, 1951.
Shikimic acid, an obscure acid previously found in certain Japanese plants, has now been found to occupy a key role in the synthesis of a number of aromatic metabolites, including tyrosine, phenylalanine and tryptophan. This compound not only is able to substitute for the multiple aromatic requirements of certain mutants but is also accumulated by others. This work opens up a whole series of studies on aromatic biosynthesis which are now in progress.
68. ----- Aromatic biosynthesis. III. Role of p-aminobenzoic acid in the formation of vitamin B₁₂. J. Bact. 62:221, 1951.
Evidence is presented that p-aminobenzoic acid may participate structurally in the formation of the aromatic portion of vitamin B₁₂.

69. ----- Chemotherapy and the unity of metabolic processes. 120th Meet. Am. Chem. Soc. Abstr. p. 5L, 1951.
Abstract of talk delivered at a symposium on tuberculosis in the Division of Medicinal Chemistry of the American Chemical Society.
70. ----- Inhibition of Escherichia coli by p-aminobenzoic acid and its reversal by p-hydroxybenzoic acid. J. Exper. Med. 94:243, 1951.
p-Hydroxybenzoic acid (POB) has recently been discovered through the use of mutants as a previously unknown bacterial vitamin derived from shikimic acid. The paper shows that inhibitory effect of high concentrations of p-aminobenzoic acid of E. coli is due to competitive interference with the utilization of POB. This work is of particular chemotherapeutic interest because p-aminobenzoic acid has been used for a number of years as an effective chemotherapeutic in rickettsial infections.
71. ----- Mechanism of PABA bacteriostasis. Competition with a new vitamin, p-hydroxybenzoic acid. Federation Proc. 10:406, 1951.
72. ----- Nonfiltrability of the agents of genetic recombination in Escherichia coli. J. Bact. 60:507-508, 1950.
A note on the evidence that the agents of genetic recombination in E. coli cannot pass through a bacteria-proof filter.
73. ----- p-Hydroxybenzoic acid; a new bacterial vitamin. Letter to Nature 166:1120, 1950.
A report that a growth factor required by certain bacterial mutants is p-hydroxybenzoic acid.
74. ----- Some metabolic functions of p-hydroxybenzoic acid. S. W. Regional Meet. Abstr. Am. Chem. Soc. p. 39, Dec. 1951.
Abstract of talk which reported that p-hydroxybenzoic acid participates in the synthesis of two amino acids - methionine and lysine.
75. ----- Studies on nutritionally deficient bacterial mutants isolated by means of penicillin. Experientia 6:41-50, 1950.
A general review of metabolic and genetic studies on a wide variety of bacterial mutants.
76. ----- and E. S. Mingioli. Mutants of Escherichia coli requiring methionine or vitamin B₁₂. J. Bact. 60:17-28, 1950.
Describes a mutant that requires either methionine or vitamin B₁₂. This mutant has subsequently become generally used in a number of countries for vitamin B₁₂ assay.
77. Enterline, P. E., and H. I. Sauer. Community-wide chest X-ray survey. VI. Records and reports. Pub. Health Rep. 66:1613-1624, 1951.
Summarizes record and report procedures used in community-wide chest X-ray surveys and indicates how they are used to render better follow up service to patients and to summarize the effect of programs.

78. Ferebee, S. H., and F. W. Appel. Resistance to streptomycin of tubercle bacilli isolated from patients treated with streptomycin. Pub. Health Rep. 66:277-288, 1951.

That resistance to streptomycin of tubercle bacilli primarily develops during therapy and not following cessation of treatment was revealed by a study of serial cultures from 157 tuberculous patients treated with streptomycin for 91 days. At the end of 53 weeks, resistance developed in the cultures of 38 percent of the patients, 17 percent remained sensitive, 40 percent ceased to produce positive cultures, and 5 percent of the patients had died. If resistance develops, it persists after treatment is discontinued. Development of resistant strains prejudices the patient's chance of ceasing to produce positive cultures.

79. Ford, M. J., and Barbara Glenn. Undetected diabetes among the relatives of diabetics. South. Med. J. 44:239-244, 1951.

Study on incidence of diabetes among relatives of diabetics. Statistical tables of prevalence and other factors involved in study in demonstration unit of the Diabetes Section, Public Health Service, Jacksonville, Florida.

80. Harting, D., and Barbara Glenn. A comparison of blood sugar and urine sugar determinations for the detection of diabetes. New England J. Med. 245:48-54, 1951.

Compares methods used in detecting diabetes in a demonstration unit of the Diabetes Section, Public Health Service, Brookline, Massachusetts.

81. Howell, A., Jr., and G. F. Kipkie. A comparison of the susceptibility by intracerebral inoculation of six strains of mice with male dba line 1 mice. Am. J. Trop. Med. 31:33-41, 1951.

A comparison was made between the susceptibility of male dba line 1 mice (a uniformly susceptible strain) and six other strains of mice to an intracerebral injection of a specified strain of *Histoplasma capsulatum*. Two strains (C3H and inbred Swiss albino) were found to be susceptible as male dba line 1 mice, as measured by mortality rates and length of time from injection until death. The other strain studied appeared to be less susceptible.

82. Kattwinkel, E. E., V. A. Getting, E. M. Morris, and W. J. Zukel. A community heart program. New England J. Med. 245:595-598, 1951.

Describes some of the methods for control of heart disease in a local community. Demonstrated cooperation among physicians, health agencies, medical societies, and citizens. The program included refresher courses for the professions (physicians, nurses, nutritionists, laboratory technicians), anticoagulant teaching, prevention of rheumatic fever, screening for heart disease, nutrition and public health nursing consultation.

83. Kipkie, G. F., and A. Howell, Jr. Histopathology of experimental histoplasmosis. Arch. of Path. 51:312-318, 1951.

Histological studies were performed on 491 mice following intracerebral, intravenous and intraperitoneal injection of various strains of *Histoplasma capsulatum*. The lesions produced were observed to be typically

gramulamatous, most frequently involving the liver and spleen, regardless of the route of inoculation. The distribution of the lesions seemed to be related to the number of organisms entering the general circulation.

84. Kurlander, A. B. Present day concepts of tuberculosis and chronic disease control. J. Nat. Med. Assoc. 43:374-378, Nov. 1951.
Discusses why in recent years public health research has tended to shift its emphasis from the control of acute communicable diseases to chronic disease control. Emphasizes the preventive aspects of tuberculosis and chronic disease control, with special reference to the place of the private physician.
85. Maas, W. K. Isolation of the pantothenate-synthesizing enzyme from Escherichia coli. Federation Proc. 10:415, 1951.
Abstract of talk describing the isolation and properties of an enzyme that carries out a reaction now being studied in connection with the mechanism of action of bacterial inhibitors that interfere with this reaction, and the biochemical mechanism responsible for drug resistance to these inhibitors.
86. ~~-----~~ and B. D. Davis. Pantothenate studies. I. Interference by D-Serine and L-Aspartic acid with pantothenate synthesis in Escherichia coli. J. Bact. 60:733-745, 1950.
87. Macri, Rosa C. Changing trends in diabetic diet instructions. Dallas Med. J. 37:136-137, 1951.
Discusses a simplified method of calculating diabetic diets and a time-saving booklet to instruct diabetic patients, worked out by the joint committee of the American Diabetes Association, Inc., the American Dietetic Association, and Diabetes Section of the Public Health Service.
88. Meredith, Alla, Anne Matthews, Mayton Zickefoose, Eleanor Weagley, Marian Wayave, and Edna G. Brown. How well do school children recall what they have eaten? J. Am. Dietet. Assoc. 27:749-751, 1951.
Discusses the types of errors between the child's recall of food eaten at lunch in a rural school and the actual consumption noted by checking the lunch tray.
89. Miller, C. H. Finding diabetes and getting the patient to his family doctor. Health (Wisconsin State Board of Health) 10:30-33, 1951.
Preliminary report of 22-month diabetes detection program concluded in Milwaukee in February 1951.
90. Miller, Pauline. Medical social service in a tuberculosis sanatorium. Pub. Health Rep. 66:987-1008, Aug. 1951; 66:1139-1157, Sept. 7, 1951.
Discusses the inter-relationship of social and emotional factors with the medical condition of patients in tuberculosis sanatoria, and the case work services provided to patients and their families in dealing with these factors.

91. Naylor, Martha B. Nursing in tuberculosis hospitals. Pub. Health Rep. 66:1272-1294, 1951.

This article is based on nursing surveys in about 45 tuberculosis services in general hospitals, special hospitals, and sanatoria in 12 States and the District of Columbia. It presents the situation existing in many tuberculosis hospitals and makes suggestions for improvement of nursing care of patients, safety of the hospital environment, and ways of making tuberculosis nursing a challenging as well as a satisfying job.

92. Ottenberg, D., K. Boucot, W. E. Chamberlain, L. Cohen, and S. E. Yelton. Central cooperative clinic study of follow-up in tuberculosis control. I. Background, objectives, and methodology. Pub. Health Rep. 66:853-862, 1951.

Discusses problems presented by individuals found through mass surveys to have lesions suspicious of tuberculosis. In order to establish a rational basis for dealing with such persons, a longitudinal study of more than 600 cases discovered as a result of 17 microfilm surveys in Philadelphia was begun in 1947. The plan calls for careful observation of these cases over a period of years in order to learn what kinds of lesions found in survey films are important in terms of later progression of tuberculosis.

93. Palmer, C. E., and S. N. Meyer. Research contributions of BCG vaccination programs I. Tuberculin allergy as a family trait. Pub. Health Rep. 66: 259-276, 1951.

The research opportunities presented by BCG vaccination programs are illustrated by this investigation. A group of over 3,000 children in rural Denmark, known nonreactors to tuberculin, were used to evaluate the variation in the development of tuberculin allergy after receiving identical measured infections with BCG at the same time. Variance in reaction was equally divided between experimental error and biological factors. Of the biological variation one-half was due to familial differences and one-half to individual.

94. Salamon, I. I., and B. D. Davis. Studies on aromatic biosynthesis. Isolation of a precursor of shikimic acid. 119th Meet. Am. Chem. Soc. Abstr. p. 21C, 1951.

Abstract of talk on the isolation of a key intermediate in aromatic biosynthesis, and its identification as 5-dejudroshikimic acid.

95. Shaw, L. W. Field studies on immunization against tuberculosis I. Tuberculin allergy following BCG vaccination of school children in Muscogee County, Georgia. Pub. Health Rep. 66:1415-1426, 1951.

Tuberculin allergy among 2,500 Muscogee County, Georgia, BCG vaccinated school children was found to be of only moderate degree 6 months after vaccination and had declined to a very low level 3 years after vaccination. The observation of very prevalent naturally-induced low grade tuberculin sensitivity in the community before vaccination and in the nonvaccinated control group 3 years after the vaccination program is emphasized in the discussion of these results.

96. Snyder, J. C., and B. D. Davis. Reversal of rickettsiostatic effect of p-aminobenzoic acid by p-hydroxybenzoic acid. *Federation Proc.* 10:419, 1951.
Abstract of talk describing the confirmation in rickettsiae of the competitive inhibition (described in *J. Exp. Med.* 94:243, 1951) with E. coli).
97. Shindell, S. Medical services rendered by local government - a survey of legal problems involved. *Geo. Wash. Law Rev.* 19:675, 1951.
Activities of local health departments in the medical care field are discussed with respect to their origin from the legal standpoint and are classified on the basis of their development through the years. Describes the types of authorization possessed by local units to engage in activities enumerated.
98. Turner, O. D., and Evelyn H. Halpin. Tuberculosis mortality in the United States, 1949. *Pub. Health Rep.* 66:547-560, 1951.
Presents data on tuberculosis mortality in the United States derived from a 10-percent sample of death certificates in 1949 and the first 11 months of 1950 and summarizes the changes.
99. Van Allen, W. W. Protection of photofluorographic personnel. *Pub. Health Rep.* 65:865-868, 1950.
Discusses problems of radiation protection peculiar to photofluorographic equipment. Reduction in the amount of radiation received by personnel following the introduction of a film monitoring program is reported. Intensity of secondary radiation encountered in the vicinity of two types of photofluorographic installations are shown in the form of isodose field maps.
100. ----- Secondary radiation fields surrounding photofluorographic equipment. *Radiology* 56:832-841, 1951.
101. ----- Secondary radiation limits in photofluorography. *Pub. Health Rep.* 66:712-716, 1951.
102. Velat, C., O. Mickelsen, Millicent L. Hathaway, Sadye F. Adelson, Frieda L. Meyer, and Betty B. Peterkin. Evaluating school lunches and nutritional status of children. *U. S. Dept. Agric. Circ. No. 859*, Washington, D. C. 85 p., 1951.
Summarizes the clinical, biochemical, and dietary findings on the nutritional status and diet of children with and without a school lunch in two elementary schools in Cumberland, Md. in 1947 and 1948.
103. Vogel, H. J., and B. D. Davis. Path of biosynthesis of proline. *Federation Proc.* 10:423, 1951.
A precursor of proline and accumulated by certain mutants has been isolated and identified as pyrroline-5-carboxylic acid.
104. ----- B. D. Davis, and E. S. Mingioli. L-histidinol, a precursor of L-histidine in Escherichia coli. *J. Am. Chem. Soc.* 73:1897, 1951.
A precursor in the synthesis of L-histidine that is accumulated by certain mutants of Escherichia coli has been isolated and identified as

L-histidinol, an alpha-amino-alcohol. This development is particularly interesting because L-histidinol is the first amino-alcohol found to be a precursor of an amino acid.

105. Wilkerson, H. L. C. Public health aspects of diabetes control. Health News, New York State Department of Health 28 (2):3-12, 18, 19, 1951.
Describes public health methods in diabetes control and activities of the Diabetes Section, Public Health Service. Photographs and text describe testing and screening procedure.

106. ----- and Barbara Glenn. A preliminary report on a study of blood sugar screening levels. Am. J. Pub. Health 41:440-446, 1951.
Compares results of blood sugar screening and diagnostic testing for diabetes. Statistical charts compare capillary Folin-Malmros and capillary Somogyi-Nelson methods under various conditions in units of Diabetes Section, Public Health Service.

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107. Ajello, L. Collecting specimens for the laboratory demonstration and isolation of fungi. J.A.M.A. 146:1581-1583, 1951.
Procedures are outlined for the proper method of collecting, culturing, and shipping of clinical materials for mycologic examination.
108. ----- The nature of the so-called macroconidia observed on Microsporum-infected hairs. J. Invest. Dermat. 16 (1):3-6, 1951.
Attention is brought to the erroneous identification of root sheath cuticle cells with macroconidia.
109. ----- V. Q. Grant, and M. A. Gutzke. The effect of tubercle bacillus concentration procedures on fungi causing pulmonary mycoses. J. Lab. & Clin. Med. 38:486-491, 1951.
Demonstrates that tubercle bacillus digestion and concentration procedures do not permit recovery of fungi from sputum and recommends that appropriate mycologic procedures be used for the isolation of fungi.
110. ----- V. Q. Grant, and M. A. Gutzke. Use of mineral oil in the maintenance of cultures of fungi pathogenic for humans. Arch. Dermat. & Syph. 63:747-749, 1951.
A 2-year test of preserving pathogenic fungus cultures in a viable condition with mineral oil is reported. Oil is considered to be the method of choice for maintaining fungus cultures.
111. ----- and L. D. Zeidberg. Isolation of Histoplasma capsulatum and Allescheria boydii from soil. Science 113:662-663, 1951.
The first isolations of Histoplasma capsulatum and Allescheria boydii from soil in Tennessee are reported.
112. Andrews, J. M. Nation-wide malaria eradication projects in the Americas; I. The eradication program in the U. S. A. J. Nat. Malaria Soc. 10: 99-123, 1951.
Discusses antimalaria campaigns in the United States from early local

operations to the present national malaria eradication program, outlining the decline of malaria incidence in association with its causes.

113. Atchley, F. O. Leucocytozoon andrewsi n. sp., from chickens observed in a survey of blood parasites in domestic animals in South Carolina. J. Parasitol. 37:483-488, 1951.
More than 1,600 domestic animals were examined in searching for the source of unidentified sporozoites occurring in anopheline mosquitoes near the Santee Reservoir.
114. Austrian, R., J. A. Barondess, G. S. Mirick, S. M. Sessoms, J. E. Sweeney, and C. G. Zubrod. The efficacy of aureomycin in the treatment of pneumococcal lobar pneumonia. Bull. Johns Hopkins Hosp. 89:407, 1951.
Aureomycin has been found to be a satisfactory drug for the treatment of pneumococcal lobar pneumonia.
115. Belkin, J. N., N. Ehmann, and G. Heid. Preliminary field observations on the behavior of the adults of Anopheles franciscanus in southern California. Mosq. News 2:23-31, 1951.
Observations on swarming, mating, and resting habits and the first record of Anopheles franciscanus feeding extensively on humans.
116. Bigham, J. T., C. W. Sabrosky, and R. P. Dow. Sequel to "Hippelates (eye gnat) investigations in the Southeastern States," by J. T. Bigham. Ent. Soc. Washington Proc. 53:263-271, 1951.
Analysis of the widespread occurrence of Hippelates bishoppi in the material collected in Bigham's experiments on H. pusio establishes the fact that bishoppi also breeds in cultivated soil.
117. Bradley, G. H. Public health interest in mosquito control. New Jersey Mosq. Extermination Assoc. Proc. 59-63, 1951.
Discusses the Surgeon General's statement regarding the interests of Federal and State Health workers in mosquitoes from both the disease and comfort standpoints.
118. ----- and F. E. Lyman. Mosquito control activities of the Communicable Disease Center, U. S. Public Health Service. Mosq. News 11:122-125, 1951.
Reviews Center programs involving anti-mosquito measures.
119. Breeland, S. G. The identification of the early larval instars of three common Anophelines of southern Georgia, U. S. A. J. Nat. Malaria Soc. 10:224-232, 1951.
Keys, illustrations, and tables of salient characters are offered to aid in the identification of first, second, and third instar larvae of Anopheles quadrimaculatus, Anopheles crucians, and Anopheles punctipennis. Reference to keys to fourth instar larvae and pupae of these species are included.
120. Brown, R. Z. Reproduction and population levels in the house mouse (Mus musculus). In Anat. Rec. Abstr. 111:493, 1951.
In caged populations of house mice, disturbances to parturient female mice by other resident mice inhibited successful reproduction by causing the females to destroy their young, thereby keeping the population levels lower.

121. Chamberlain, R. W., H. Rubin, R. E. Kissling, and M. E. Edson. Recovery of virus of Eastern equine encephalomyelitis from a mosquito, Culiseta melanura (Coquillett). Soc. Exper. Biol. & Med. Proc. 77:396-397, 1951.
Eastern equine encephalomyelitis virus was isolated from wild caught Culiseta melanura.
122. Chandler, A. C., and D. M. Melvin. A new cestode, Ogchoristica pennsylvanica, and some new or rare helminth host records from Pennsylvania mammals. J. Parasitol. 37:106-109, 1951.
Describes a new species of tapeworm, O. pennsylvanica, from a species of Blarina with several new host records from various mammals.
123. Chang, T. W., and H. A. Wenner. Interrelationships observed between the Lansing strain of poliomyelitis virus and the virus of sporadic bovine encephalomyelitis. Soc. Exper. Biol. & Med. 78:659-662, 1951.
Two strains of bovine encephalitis virus have been adapted to mice, cotton rats, and rhesus monkeys causing meningo-encephalomyelitis. Evidence was presented to show that the Lansing strain of poliomyelitis virus and the bovine encephalitis virus are related serologically.
124. Clark, W. H., A. S. Bogucki, E. H. Lennette, B. H. Dean, and J. R. Walker. Q fever in California. VI. Description of an epidemic occurring at Davis, California in 1948. Am. J. Hyg. 54:14-24, 1951.
An outbreak of Q fever involving 68 persons at an agricultural college at Davis, California, is described. Evidence points to sheep as the probable source of infection.
125. ----- E. H. Lennette, and G. Meiklejohn. Q fever in California. III. Aureomycin in the therapy of Q fever. Arch. Int. Med. 87:204-217, 1951.
Aureomycin appears to effect a significant reduction in the duration of Q fever, and the antibiotic is considered useful in the treatment of this disease.
126. ----- E. H. Lennette, and M. S. Romer. Q fever in California. IX. An outbreak aboard a ship transporting goats. Am. J. Hyg. 54:35-43, 1951.
Pregnant dairy goats formed part of the cargoes of a trans-Pacific cargo ship on which an outbreak of Q fever occurred among the crew. Evidence pointed to the goats as probable sources of infection.
127. ----- E. H. Lennette, and M. S. Romer. Q fever in California. XI. An epidemiologic summary of 350 cases occurring in northern California during 1948-1949. Am. J. Hyg. 54:319-330, 1951.
Evidence points to a dissemination of the causal agent through the contamination of the environment and the atmosphere.
128. ----- M. S. Romer, M. A. Holmes, H. H. Welsh, E. H. Lennette, and F. R. Abinanti. Q fever in California. VIII. An epidemic of Q fever in a small rural community of northern California. Am. J. Hyg. 54:25-34, 1951.
This paper deals with the epidemiologic findings surrounding an outbreak of Q fever in a small rural community.

129. Cockburn, T. A., E. R. Price, and J. A. Rowe. Encephalitis in the Midwest. I. A review of the problem. J. Kans. Med. Soc. 52:316-318, 1951.
A history of the infections up to 1949.
130. Coffey, J. H. Location and community fly control. Pest Cont. 19 (5): 18, 20, and 36, 1951.
Stresses that the basic solution to fly breeding problems is sanitation of the environment, for both the community as a whole and the individual premises.
131. Coleman, R. D. California mosquito control studies; cooperative drainage of irrigation lands. Section of the Operations Manual of the California Mosq. Cont. Assoc., 1951.
Summarizes the findings of a study of three cooperative drainage projects in the San Joaquin Valley of California, the purpose being to determine the benefits to be derived by drainage of irrigation lands, including those benefits gained from the standpoint of mosquito control.
132. Crowell, R. L., and R. W. Fay. Preliminary experiments in the use of hot DDT and other halogenated hydrocarbons for residual applications. J. Nat. Malaria Soc. 10 (1):8-16, 1951.
DDT, DFDT, DDD, methoxychlor, heptachlor, chlordan, aldrin, and lindane were melted separately and were sprayed on glass panels and many materials used to finish the interior of aircraft at 100 p.s.i. The resulting residual deposits (200-400 mg. per sq. ft.) were highly effective (15-minute exposures) against normal Musca domestica.
133. Davis, D. E., R. Z. Brown, and W. B. Jackson. The effect on mouse populations of sprinkling industrial effluent in an oak woods. 16th North Am. Wildlife Conf. Tr. p.283-289, 1951.
Effluent from vegetable washing and preparation in a frozen food plant was sprinkled on an oak woods at the average rate of 540 inches in 6 months, but it had no measurable effect on the local population of deer mice (Peromyscus leucopus).
134. Dodge, H. R. The occurrence of certain palaearctic species of muscoid Diptera in the United States. Ent. Soc. Washington Proc. 53:341, 1951.
Distributional data are given for five species of flies, of which three are new North American records.
135. Donaldson, A. W. Serological diagnosis of parasitic and mycotic infections. Pub. Health Lab. 9:55-60, 1951.
A general review of the availability and current status of serologic tests for certain of the parasitic and mycotic infections.
136. Edwards, P. R. The preparation of antisera for the detection of the somatic antigens of Salmonella cultures. Pub. Health Rep. 66:837-839, 1951.
The use of alcohol-acetone treated cells prepared according to the method of Roschka was found to yield high titered O sera suitable for grouping Salmonella cultures.

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138. ----- and M. A. Fife. A new Salmonella type; Salmonella homosassa. Pub. Health Rep. 66:1060-1061, 1951.
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139. ----- and M. A. Fife. A new Salmonella type; Salmonella milwaukee. Pub. Health Rep. 66:1059-1060, 1951.
Salmonella milwaukee, which occurred in a familial outbreak of gastro-enteritis, had the antigenic formula XLIII: f,g.
140. Emmett, J., and R. E. Siverly. Human myiasis from the screwworm fly in Arizona. Arizona Med. 8:57-60, 1951.
Reports on characteristic case of nasal myiasis in which the causal fly was identified as Callitroga americana.
141. Eskey, C. R., F. M. Prince, and F. B. Fuller. Double infection of the rat fleas Xenopsylla cheopis and Nosopsyllus fasciatus with Pasteurella and Salmonella. Pub. Health Rep. 66:1318-1326, 1951.
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Encapsulated cultures of Shigella types are described, apparently for the first time, and nature and relationships of the K antigen of S. boydii 2 are reported.
143. ----- M. C. Hucks, and M. W. Taylor. Provisional Shigella boydii 9. Pub. Health Rep. 66:1579-1586, 1951.
The biochemical and serologic relationships of an additional Shigella type, provisional S. boydii 9, are described.
144. ----- and M. W. Taylor. Two provisional Shigella boydii serotypes. Pub. Health Rep. 66:1327-1331, 1951.
Two new Shigella serotypes are described and their biochemical and serologic relationships are elucidated.
145. Ferguson, F. F., and Y. C. Chen. Histology of the excretory system of the swine nematode, Ascaris lumbricoides Linnaeus, 1758. Am. Microscopical Soc. Tr. 70:257-264, 1951.
The excretory system of Ascaris lumbricoides was not found to be unicellular, but multicellular.
146. Fowler, R. E., and H. H. Bevil. Aneurysms of the sinuses of Valsalva with report of a case. Pediatrics. 8:340-348, 1951.
A review of the literature and discussion of the pathogenesis of

congenital aneurysms of the sinuses of Valsalva is recorded. A case believed to be the youngest yet recorded is presented, together with the findings revealed by cardiac catheterization.

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A concise discussion and description of the in vitro test.

148. ----- and E. I. Parsons. Differentiation of minimum type C. diphtheriae by slow fermentation of dextrose. Science 113:317, 1951.

Details of the technique for differentiation of the minimum type.

149. Furcolow, M. L. Tuberculin-negative tuberculosis. Am. Rev. Tuberc. 64:468-469, 1951.

150. ----- and J. Sitterley. Further studies of geography of histoplasmin sensitivity in Kansas and Missouri. J. Kansas State Med. Soc. 52: 584-589, 1951.

Postulates that geographic differences may be of importance in histoplasmin sensitivity.

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Laboratory tests were performed to evaluate the effect, if any, of warfarin upon oriental rat fleas when the poison was fed in meal to the host rat in sufficient quantity to kill the animal.

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Ten of eleven strains studied were found to have a partial requirement for thiamine which could be replaced by an equimolar amount of pyrimidine. Some stimulation was produced by oxalacetate and by large doses of para-aminobenzoic acid. One strain was sufficient for the vitamins, but showed a complete deficiency for l-histidine.

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It was shown that under conditions of adequate nutrition this fungus grows rapidly and produces spores characteristic of the genus Trichophyton. The classification of T. violaceum is reviewed.

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Sabouraud dextrose agar fortified with penicillin, streptomycin, and actidione is suggested as a selective medium for the isolation of Coccidioides immitis. Penicillin and streptomycin inhibit the growth of bacteria, and actidione serves to delay the development of saprophytic fungi commonly encountered in air sampling.

155. Gilbertson, W. E. Sharpening the focus of sanitation measures. The Journal-Lancet. 71:160, 1951.
Analyses of progress in environmental sanitation to show that, through research and field observation, the nonessential elements are eliminated and the attack on disease is sharpened by concentrating on the most important facets. Examples of specific measures and disease problems are given.
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A basic modification of the sequence method of staining with iron-hematoxylin which eliminates the destaining process is presented.
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An epidemiological study on the malaria parasite of the fence lizard.
158. Gordon, M. A. Lipophilic yeastlike organisms associated with tinea versicolor. J. Invest. Dermat. 17:267-272, 1951.
Previously undescribed fungi requiring fats or fatty acids for growth in artificial media have been recovered from diseased and healthy skin.
159. ----- Rapid permanent staining and mounting of skin scrapings and hair. Arch. Dermat. & Syph. 63:343-346, 1951.
A new method for the demonstration of fungi in dermatological material.
160. ----- The lipophilic mycoflora of the skin. I. In vitro culture of Pityrosporum orbiculare n. sp. Mycologia 43:524-535, 1951.
A new species is described and its cultural characteristics are illustrated.
161. ----- Veterinary mycology and its public health significance. The Auburn Vet. 8:14-21, 1951.
Describes the animal mycoses, their prevalence, and the fungi which cause them, with comments upon their importance to human health.
162. ----- and H. M. DuBose. Anorectal actinomycosis with extensive gluteal and thigh involvement. Am. J. Clin. Path. 21:460-463, 1951.
Summary of an unusual case of actinomycosis that went undiagnosed for 30 years, with mycological findings.
163. Grayston, J. T., C. G. Loosli, and E. R. Alexander. The isolation of Histoplasma capsulatum from soil in an unused silo. Science 114: 323-324, 1951.
A study of the possible source of the fungus (H. capsulatum) responsible for extensive pulmonary infections in three male members of a farm family.
164. Habel, K., and C. P. Li. Intraspinal inoculation of mice in experimental poliomyelitis. Soc. Exper. Biol. & Med. Proc. 76:357, 1951.
Describes a new method for inoculation of poliomyelitis virus into mice, which gives quick and definite results.

165. Hayes, W. J., Jr., F. F. Ferguson, and J. S. Cass. The toxicology of dieldrin and its bearing on field use of the compound. *Am. J. Trop. Med.* 31:519-522, 1951.

On the basis of extensive animal experiments and clinical examination of workers who carried out limited field operations it is concluded that on vector control programs, dieldrin can safely be used as an outside residual spray by appropriately trained personnel.
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In a controlled epidemiological study it was demonstrated that incidence of human cases of murine typhus fever, prevalence of complement-fixing antibodies in the domestic rat reservoir, and the abundance of rat fleas were significantly reduced as a result of county-wide DDT dusting of rat runs and harborage, and that these effects persisted for over 2 years following the last county-wide treatment of two counties in southern Georgia with no significant change in the adjacent untreated county.
167. Holdenried, R., F. C. Evans, and D. S. Longanecker. Host-parasite-disease relationship in mammalian community in the central coast range of California. *Ecological Monographs* 21:1-18, 1951.

Discusses the hosts, parasites, and diseases encountered in a 5-year study of a small area in California, with an appendix of an annotated ectoparasite-host list.
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Describes precipitous outbreak in range cattle.
171. Jensen, J. A., and R. W. Fay. Tagging of adult house flies and flesh flies with radioactive phosphorus. *Am. J. Trop. Med.* 31:523-530, 1951.

Investigates method of tagging adult flies by feeding them milk containing radioactive phosphorus, and the various factors governing the

efficiency of tagging with respect to specie, sex, concentration of isotope, and biological half-life with respect to diet.

172. Johnson, R. J., and R. W. Buck. Housing programs and the health department. *Ohio's Health* 3:5-10, 1951.
Studies of the relation of housing and health reveal that substandard housing is associated with higher morbidity and mortality rates than average or good housing. The health department's role in improving these substandard conditions is discussed.
173. Kissling, R. E., and H. Rubin. Pathology of eastern encephalomyelitis. *Am. J. Vet. Res.* 12:100-105, 1951.
Eastern equine encephalomyelitis virus was isolated from wild caught Culiseta melamurai.
174. ----- H. Rubin, R. W. Chamberlain, and M. E. Eidson. Recovery of virus of eastern equine encephalomyelitis from the blood of a purple grackle. *Soc. Exper. Biol. & Med. Proc.* 77:398-399, 1951.
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175. Kohler, C. E., and I. Fox. The relative attractiveness of New Jersey light traps painted (a) green and (b) yellow to Puerto Rican Culicoides. *J. Econ. Ent.* 44:112, 1951.
Trapping Culicoides with New Jersey light traps indicated that when field populations are relatively high the numbers taken in traps painted yellow were significantly larger than in traps painted green.
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Division of Dental Public Health

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272. ----- Oral health needs of children; personnel, facilities and plans for supplying those needs. J. Dent. Educ. 15:231-235, 1951.
Discussion of the problem of facilities for rendering adequate dental services to children and various plans for increasing the supply of services.
273. ----- Present status of fluoride therapy. J. Tennessee Dent. Assoc. 30:35-36, 1950.
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274. ----- Topical fluorides in today's dental caries prevention program. Pennsylvania Dent. J. 18:129-137, 1951.
The importance of topical fluorides is emphasized, since it is the only method of utilizing fluorides for the population in rural areas who do not have public water supply systems. Toxicity, safety, effectiveness, and cost of topical fluorides are discussed.
275. ----- and G. C. Scholz. The effect of topically applied fluorides on dental caries experience. VII. Consolidated report of findings for four study groups, showing reduction in new decay by individual tooth and by tooth surface, and frequency distribution of newly decayed teeth in treated and untreated mouth halves. New York J. Dent. 20: 72-78, 1950.
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Division of Engineering Resources

282. Coleman, R. D. Cooperative drainage of irrigation lands. Operations Manual, California Mosq. Control Assoc., Engin. Sec., June 1951.

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Environmental Health Center

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Presents results of experiments performed to determine the efficiency of several common water treatment processes with respect to the removal of several radioisotopes.
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305. ----- and C. C. Ruchhoft. The effect of stepwise chlorination on taste and odor-producing intensity of some phenolic compounds. J. Am. Water Works Assoc. 43:561-567, 1951.
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306. ----- C. C. Ruchhoft, and R. J. Lishka. Sensitive 4-aminoantipyrine method for phenolic compounds. Anal. Chem. 23:1783-1788, 1951.
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Reviews the development of the B.O.D. and oxygen consumed tests, compares statistically the various oxygen consumed methods, and discusses the relationship between B.O.D. and oxygen consumed of domestic sewage, polluted waters, and industrial wastes.
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320. Pessin, Vivian and L. A. Black. A comparative study of 6 agars proposed for bacterial plate counts of milk; a report of the committee on applied laboratory methods. J. Milk & Food Technol. 14:98-102, 1951.
The Standard agar, another agar containing skim milk, and 4 agars without skim milk were tested simultaneously on 505 milk samples in 10 laboratories. Agars without skim milk can be prepared which possess more desirable attributes than, and colony counts at least as great as, the Standard medium.
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322. Ruchhoft, C. C. Disposition of radioactive sources. Manual of Lectures at the Inservice Training Course in Radiological Health, Univ. Michigan, School of Public Health, Feb. 5-8, 1951. Reprint 4 p.
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323. ----- Studies on biochemical oxygen demand. Wastes Engin. Abstr. 22:90, 1951.
324. ----- and F. I. Norris. Evaluation of detergents. IV. A correlation of washing performance with dissolving and wetting ability. Pub. Health Rep. 66:655-667, 1951.
Summarizes results of study on approximately 100 commercial detergents and detergent compounds and describes a performance test which can be

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325. ----- F. I. Norris, and L. R. Setter. Activated sludge from foods for treatment of radioactive waste. *Indust. & Engin. Chem.* 43:1520-1526, 1951.
Presents results of laboratory studies to remove radioactive wastes through the use of activated sludge fed with common foods to produce rapid settling and satisfactory effluents.
326. Smith, R. S., T. D. Woolsey, and A. H. Stevenson. Bathing water quality and health. I-Great Lakes. A study of bathing water quality on the Chicago lake front and its relation to health of bathers. Environmental Health Center, PHS, Cincinnati, Ohio, 1951. Multilithed.
Describes study (1) to determine relationship between bathing quality of water and illness among bathers in order to delineate acceptable limits of quality for natural bathing waters and (2) to develop and test methods for collecting data on minor illnesses from a large population at minimum cost.
327. Straub, C. P. Observations on the removal of radioactive materials from waste solutions. *Sew. & Indust. Wastes* 23:188-193, 1951.
Describes possible methods for treating wastes from nuclear reactors and separation plants, isotope usage, and atomic bomb bursts and indicates methods are similar to techniques used for treating chemical wastes.
328. ----- Problems in disposal of radioactive wastes. *Wastes Engin.* 22: 70-71, 1951.
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329. ----- and P. N. Hensley. Experimental jar test laboratory stirring device. ORNL-965, Oak Ridge Nat. Lab., May 14, 1951.
Describes the design and functioning of a 10-unit laboratory jar-test stirring device for determining optimum chemical dosage requirements.
330. ----- R. J. Morton, and O. R. Placak. Experimental studies in the removal of radioactive contaminants from water. *J. Am. Water Works Assoc.* 43:773-792, 1951.
Presents results of experimental work based on laboratory study and pilot plant results.
331. ----- R. J. Morton, and O. R. Placak. Oak Ridge reports results on water decontamination study. *Engin. News-Record* 147:38-41, 1951.
An experimental treatment plant of 250-gpd capacity is being operated at Oak Ridge National Laboratory to find what success conventional processes have in removing radioactive contaminants from water supply.

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334. Weibel, S. R. Studies on household sewage disposal systems. The Sanitarian 13:159-162, 1951.
Discusses full scale experimental studies of residential septic tanks operated under various circumstances of design factors and loadings. Preliminary studies on the effects of ground garbage-sewage wastes and detergents are disclosed together with early findings on laboratory studies of soil clogging factors. Results of field examinations of residential septic tanks in operation in various areas over the country are also discussed.
335. Wolff, A. H., and H. Heimann. Industrial anthrax in the United States, and epidemiologic study. Am. J. Hyg. 53:80-109, 1951.
A statistical epidemiological study of industrial anthrax in the United States during the last 10 years indicates that the problem is confined primarily to the carpet wool industry. Describes the kinds of animal materials most likely to be contaminated with anthrax spores and presents recommendations for control of the disease.

Division of Occupational Health

336. Birmingham, D. J., P. C. Campbell, Jr., H. N. Doyle, and J. M. McDonald. Investigation of occupational dermatoses in the citrus fruit canning industry. Arch. Indust. Hyg. & Occup. Med., 3:57-63, 1951.
Occupational dermatoses encountered in the Florida citrus canning industry were noted as to incidence and causes. Methods for preventing dermatitis in this trade are suggested.
337. Brown, J. K., A. D. Hosey, and H. H. Jones. A lightweight power supply for an electrostatic precipitator. Arch. Indust. Hyg. & Occup. Med. 3:198-203, 1951.
A new type of power supply was designed for the electrostatic collection of fume, dusts and mists. The article gave methods for modification of existing commercial models which most State industrial hygiene units possess.
338. Edmundson, W. F. An unusual sequela to chrome ulceration of the skin. Arch. Dermat. & Syph. 64:371-372, 1951.
339. ----- Chrome ulcers of the skin and nasal septum and their relation to patch testing. J. Invest. Dermat. 17:17-19, 1951.
340. Gafafer, W. M. Industrial sickness absenteeism among males and females during 1950 with an index of the previous publications of the series. Pub. Health Rep. 66:1550-1552, 1951.
This continues a series begun in 1920 on the frequency of sick absences of eight days or longer. The current report covers over 170,000 males and some 15,000 females. Frequencies by cause are carried by a standard table appearing in earlier issues of the series.
341. ----- Industrial sickness absenteeism, third and fourth quarters, 1950. Pub. Health Rep. 66:779-780, 1951.
This continues a series begun in 1920 on the frequency of sick absences of eight days or longer. The current report covers some 170,000 male workers. A standard table appearing in earlier members of the series carries frequencies by cause.
342. ----- Sick absenteeism among a sample of member companies of Industrial Hygiene Foundation, 1949, and earlier years. Industrial Hygiene Foundation, Pittsburgh, Tr. Bull. 15:92-102, 1951.
This is the ninth of a series of annual reports on sick absenteeism to appear in these Transactions. The present report gives frequency, severity and disability rates based on sick absences of eight days or longer among 20,000 males and 2,500 females. The basic data are from six member companies of the Industrial Hygiene Foundation. The report concludes with a comparison of sick absenteeism rates yielded during the war and post-war periods.
343. Heimann, H., W. F. Reindollar, H. P. Brinton, and Rosedith Sitgreaves. Health and air pollution. Arch. Indust. Hyg. & Occup. Med. 3:399-407, 1951.
A method of studying air pollution in relation to human morbidity.

344. Hosey, A. D., and H. H. Jones. An inexpensive flowmeter. *Indust. Hyg. Newsletter* 11:28, 1951.
Describes an inexpensive plastic flowmeter and its application to field sampling equipment.
345. ----- F. Nevins, and H. J. Paulus. Notes on the operation and calibration of Leeds & Northrup Thomas autometer. *Indust. Hyg. Newsletter* 11:38-39, 1951.
Describes two simple methods for the calibration of the Thomas autometer. Discusses one or two minor operational difficulties and gives suggestions to overcome these.
346. Klem, Margaret C. Amendments to the social security act of special importance to nurses. *Pub. Health Nursing* 43:189-197, 1951.
Reviews opportunities for a broader use of medical service as a result of the 1950 amendments to the Social Security Act. Nurses will be needed in planning these new and expanded programs and increased employment opportunities will result.
347. ----- Nursing opportunities in medical care insurance. *Pub. Health Nursing* 43:8-16, 1951.
Discusses the desirability of including both special duty and visiting nurse services in benefits provided by prepayment plans. The inclusion of nursing services will depend on the willingness of the hospital, the physician, and the nurse to participate in demonstration programs which will provide a body of information on the values and costs of such services.
348. ----- Voluntary medical care insurance. *The Ann. Am. Acad. Political & Soc. Sc.* 273:99-105, 1951.
One of four articles on medical care insurance included in a symposium on medical care for Americans.
349. ----- and Margaret F. McKiever. Voluntary health insurance for industrial groups. *Indust. Med. & Surg.* 20:489-497, 1951.
Discusses the value of coordinating insurance benefits with in-plant and community health services, especially for new groups joining the labor force - women, the aged and the rehabilitated. The article summarizes data in "Health Insurance Plans in the United States," a report of the U. S. Senate Committee on Labor and Public Welfare, and the possible effect of wage stabilization control over health and welfare benefits.
350. Miller, S. E. The evaluation of laboratory tests. *Chicago Med. Soc. Bull.* 53:987-990, 1951.
Describes the growth and development of laboratory medicine and evaluation studies of accuracy of laboratory techniques.
351. Mountain, J. T., H. Zlotolow, and G. T. O'Connor. Determination of par-nitrophenol in urine in parathion poisoning cases. *Indust. Health Month.* 11:88-89, 1951.
Describes a procedure for the quantitative determination of par-nitrophenol in the urine as an index of parathion poisoning. This

article contains the first published mention of the recognition of para-nitrophenol as the primary urinary metabolite of parathion introduced into the circulatory system.

352. Newberry, C. L. Who's an amputee? *Indust. Health Month.* 11:155, 1951.
The inability of 50 percent of civilian amputees to use prostheses, is contrasted with the near-total success achieved by the Armed Forces and Veterans' Administration, under the guidance of the National Research Council. The amputee team used by the latter groups is credited with the successful results; and its availability to all civilians is set forth as needing only ingenuity in the organization and use of resources now available.
353. Pennell, Maryland Y., D. C. Cameron, and M. Kramer. Mental health clinic services for children in the United States 1950. *Pub. Health Rep.* 66:1559-1572, 1951.
Describes the number of mental health clinics, the volume of services for children, and the nature of clinic staffs briefly for each State.
354. Stokinger, H. E., L. T. Steadman, H. B. Wilson, G. E. Sylvester, S. Dziuba, and C. W. LaBelle. Lobar deposition and retention of inhaled insoluble particulates. *Arch. Indust. Hyg. & Occup. Med.* 4:346-353, 1951.
Determines the rates of alveolar deposition and elimination of insoluble particulates for each of the lobes of the rat lung following inhalation of uranium oxides of different mass-median particle sizes.
355. ----- C. A. Stroud, and R. E. Root. Anemia in acute experimental beryllium poisoning. *J. Lab. & Clin. Med.* 38:173-182, 1951.
A mild macrocytic type of anemia has been found to be a consistent response in three species of animals inhaling low levels of beryllium salts. Treatment with common blood-regenerating agents was varyingly successful in the different species and recovery occurred spontaneously in approximately four months in dogs.
356. Talvitie, N. A. Determination of quartz in presence of silicates using phosphoric acid. *Anal. Chem.* 23:623, 1951.
Present standards for the evaluation of the silicosis hazard involved in breathing dusty air call for determinations of the free silica content of dusts and dust-producing materials. Describes a method for accomplishing these determinations when silicate minerals are present.
357. Walters, F. J. Comparison of two screening methods for determining caries experience among a group of industrial workers. *Indust. Health Month.* 11:69, 1951.
Compares the findings of dental cries among industrial workers using two different methods of inspection.
358. Wolff, A. H., and H. Heimann. Industrial anthrax in the United States, an epidemiologic study. *Am. J. Hyg.* 53:80-109, 1951.
359. Yaffe, C. D. A guide for uniform industrial hygiene codes or regulations for dry cleaning operations. *Am. Conf. Governmental Indust. Hyg.* Mimeo. 6 p., April 1951.
Suggested principles for use in drafting regulations covering dry

cleaning operations. This is a supplement to the general code for uniform industrial hygiene regulations issued by the ACGIH.

360. ----- A guide for uniform industrial hygiene codes or regulations for the use of fluoroscopic shoe fitting devices. Am. Conf. Governmental Indust. Hyg. Mimeo. 9 p., July 1951.

Suggested principles for use in drafting regulations covering use of fluoroscopic shoe fitting devices. This is a supplement to the general code for uniform industrial hygiene regulations issued by the ACGIH.

361. ----- American safety standard code for ventilation and operation of open-surface tanks. Z9.1, 24 p., Jan. 1951.

Detailed information on design features and recommended ventilation rates for various types of open-surface tank operations. Replaces the ASA standard on electroplating.

Division of Public Health Education

362. Butterworth, T. H. Human relations in the field of sanitation. Mod. Sanitation 3:14-15 and 62-64, 1951.
363. Rosenstock, I. M. Perceptual aspects of repression. J. Abnormal & Social Psychol. 46:304-315, 1951.
Describes a method for producing perceptual phenomena related to the psychoanalytic concept of repression and discusses the experimental results obtained.

Division of Public Health Nursing

364. McIver, Pearl. Preparing nurses for efficient service within the Public Health Service. Mil. Surgeon 108:212-225, 1951.
An analysis of the types of nursing positions in the Public Health Service with discussion of qualifications for appointment and programs for staff development.
365. ----- Public health nursing at the midcentury. North Dakota Nurse, Oct. 1951.
Public health nursing - a product of the twentieth century - has grown in its attempt to meet the demands of this century. This report takes notice of milestones and sets future goals.
366. ----- Problems resulting when home care of the tuberculous patient is necessary. Nat. Tuberc. Assoc., Abstr. Papers, p. 27-28, New York, May 1951.
Discusses nursing responsibilities to the patient, family, and community.
367. McLaughlin, Margaret. The 1951 census of nurses in public health work. Pub. Health Nursing 43:550-553, 1951.
A report of the fourteenth annual census of the number and qualifications of nurses employed for public health work.

Division of Sanitation

368. Division of Sanitation. Handbook on sanitation of railroad servicing areas. USPHS Pub. 66, 1951.
369. ----- Handbook on sanitation of vessels in operation. USPHS Pub. 68, 1951.
370. ----- Septic tank care. USPHS Pub. 73, 1951.
371. ----- Handbook on sanitation of dining cars in operation. USPHS Pub. 83, 1951.
372. ----- Handbook on sanitation of railroad passenger car construction. USPHS Pub. 95, 1951.

373. Atkins, C. H. Milk trade barriers - a public health problem. Virginia Municipal Rev. 28:101-103, 1951.
A great number of American communities and other jurisdictions use health ordinances to protect local dairy industries from competition. The U. S. Supreme Court has ruled that this practice is wrong, and cites the "Local Ordinance and Code Recommended by the U. S. Public Health Service" as one of two methods for protecting local populations from unsafe milk.
374. Faulkner, J. D. The food sanitation program of the U. S. Public Health Service. Mod. Sanitation 3(7):20-23, 63-64, 1951.
The food sanitation activities of the Public Health Service are grouped into 6 major categories and described. The paper also cites the extent of food-borne disease in the U. S. and the need for greater cooperation between official agencies and industry for the control and prevention of food-borne disease.
375. Fuchs, A. W. The development of the (PHS) milk and food sanitation program. J. Milk & Food Technol. May-June, p. 116-118, July-August, p. 144, Sept.-Oct., p. 162-164, 1951.
A historical review of the origin, development, and acceptance of the PHS milk and food sanitation programs, together with an outline of the research studies undertaken.
376. ----- Bactericidal value of dishwashing machine sprays. Mimeo. Aug. 24, 1951.
This biomathematical analysis concludes that the third draft of the standards for dishwashing machines of the NSF Joint Committee on Food Equipment Standards, does not provide adequate bactericidal treatment in the case of the single tank conveyor type machine, thus confirming Mallmann's experimental results.
377. Helvig, R. J. How can the veterinarian improve meat, milk and poultry inspection in his community? J. Am. Vet. Med. Assoc. 116:88-91, Feb. 1950.
The veterinarian, as (1) a citizen of the community, (2) a member of the City Council, (3) a member of the Board of Health, and (4) an active employee of the Health Department, can plan a definite role in the improvement of the meat, milk, and poultry food supply in his community.
378. ----- and R. W. Hart. Poultry sanitation standards. Am. J. Pub. Health 41:938-943, 1951.
Public health officials are obligated to take an active part in the development of adequate and meaningful poultry inspection programs. In doing so, it is important that uniform standards which represent the combined efforts of industry and of official agencies be developed, and that the adoption and enforcement of these standards be actively promoted.
379. Kent, F. S. Role of the sanitary engineer. Panel discussion on "Home Accident Prevention," Am. J. Pub. Health 40:519-520, 1950.
The sanitary engineer, as a member of the public health team, in the prevention of accidents in the home can concentrate his efforts in the inventory and appraisal of environmental hazards in the home in the course of normal home contacts. Then through engineering, education and enforcement of realistic codes - suggest preventive methods that can be utilized by any member of the health department.

380. ----- and M. A. Pond. Public health consideration on housing design and home accident prevention. Pub. Health Rep. 66:1461-1465, 1951.
Home accident rates can be decreased through the improvement of the housing environment. Such improvement is the most tangible and most readily affected area of work in a preventive program. Through engineering, education, and adequate enforcement of sound building and housing codes, major advances can be made.
381. Van Derwerker, R. J., and L. Weaver. Refuse collection and disposal. A bibliography. USPHS Pub. 91, 1951. 90 p.
This is a revision of an original compilation made in 1949 for the period 1940-1948. The new version covers the decade 1941-1950. It is arranged in sections according to the various administrative and operational phases of the field of refuse collection and disposal.
382. ----- Sanitary landfill vs. incineration. American City 66:98-99, 1951.
Presents advantages and shortcomings of landfill and incineration; comparative operating costs; and current trends in refuse disposal.

Division of State Grants

383. Ferguson, Marion. Research in nursing. Am. J. Pub. Health 41:716-720, 1951.
Outlines some methods of research applicable to nursing research and presents a challenge to the profession in relation to the responsibilities for research.
384. Graning, H. M., Marion Ferguson, Bess A. Cheney, and Anne M. Leffingwell. Activities of medical administrators in State health departments. Pub. Health Rep. 66:619-629, 1951. Reprint No. 3081.
This study was undertaken to ascertain, if possible, what activities now performed by medical administrators require medical skills. By studying the various activities in connection with all kinds of public health programs it was hoped to learn (1) ways in which the skills and knowledge possessed by medically trained persons could be utilized more productively; (2) areas of operation in which administrative assistants without medical training could supplement and extend the fields of operation of the medically trained administrator, thus releasing him from administrative responsibilities not requiring medical training.
385. Lieberman, J. Sanitation program for school lunchrooms. School Executive 70(12):95-97, 1951.
Presents rules of sanitation for schools to observe to prevent food-borne disease outbreaks.

Division of Venereal Disease

386. Arnold, R. C., and Charlotte P. McLeod. Relative effectiveness of penicillin therapy in early and latent syphilis in rabbits. J. Ven. Dis. Inform. 32:120-122, 1951.
Demonstrates that larger doses of penicillin were required to cure early syphilis than were necessary to cure latent syphilis.

387. ----- and J. D. Thayer. High potency of a penicillin G. in experimental syphilis. *J. Ven. Dis. Inform.* 32:5-6, 1951.
Results of the various studies indicated that a certain lot of crystalline penicillin G was very effective in the treatment of syphilis in animals and may have influenced the therapeutic results in this and other clinical studies.
388. Aufranc, W. H., and Eleanor V. Price. The treatment of secondary syphilis with procaine penicillin and aluminum monostearate - a progress report in evaluation of therapy. *Am. J. Syph.* 35:57-66, 1951.
Reports on two series of patients and reflects experience of a number of investigators. Preliminary results indicated that a single injection of procaine penicillin in oil with 2-percent aluminum monostearate was as effective as a similar amount administered in divided doses at weekly intervals.
389. Ball, R. W. Congenital syphilis; an approach to the problem via the birth certificate. *J. Ven. Dis. Inform.* 32:208-215, 1951.
A study was made of over 100,000 South Carolina birth certificates filed for the calendar years 1948, 1949, and 1950. Use of data obtained from birth certificates has proved to be one of the most effective and least expensive single means of bringing the problem of control of congenital syphilis to the attention of physicians, midwives, and public health personnel.
390. Bauer, T. J. Evaluation of antisyphilitic therapy with intensive follow-up. I. The plan. *J. Ven. Dis. Inform.* 32:355-370, 1951.
Reports on the Blue Star Study, undertaken in December 1945 by the United States Public Health Service and cooperating treatment facilities. The objective of the study was to evaluate the efficacy of penicillin as a means of preventing infectious or serologic relapses in syphilis patients and as a means of preventing late, crippling complications of syphilis, and deaths from this disease.
391. Beecher, S. B., H. N. McIntosh, and E. J. McCart. Dental hypoplasias in relation to congenital syphilis. *J. Ven. Dis. Inform.* 32:70-71, 1951.
A survey of incomplete and defective dental development in relation to congenital syphilis was made in 18 public schools for Negroes in Pemiscot County, Missouri. Of 54 suspects reported by the dentist, 50 were serologically tested for syphilis and 16 were found to be infected with congenital syphilis.
392. Bucca, M. A., J. D. Thayer, Harriet B. Roberts, and B. Tager. Dehydrogenations produced by the Reiter Spirochete. *J. Ven. Dis. Inform.* 32:6-12, 1951.
Presents a study undertaken to determine the range of compounds activated by a purported avirulent strain of *Treponema pallidum* as determined by the Thunberg dye-reduction method.
393. Bulla, A. C., Flora Wakefield, and M. E. Hunt. Casefinding of early syphilis by the public health nurse. *J. Ven. Dis. Inform.* 32:122-129, 1951.
Describes some existing opportunities for syphilis casefinding in a generalized public health nursing service.

394. Cannefax, G. R. A demonstration of the stability of dehydrated serum and suggestions for its use. *J. Ven. Dis. Inform.* 32:319-327, 1951.
A demonstration of the stability of dehydrated serum during 15 months storage at room temperature by 49 laboratories. Suggestions are made concerning the use of dehydrated serum for sensitivity control of serologic tests for syphilis and evaluation studies of test performance.
395. Cecil, H. L., and E. B. Johnwick. Cisternal puncture for examination of cerebrospinal fluid. *J. Ven. Dis. Inform.* 32:86-90, 1951.
Reviews four fatalities occurring among 44,711 patients subjected to cisternal puncture for CSF fluid examination.
396. Crane, G. W., Jr., and S. D. McPherson, Jr. The effect of local cortisone in the treatment of syphilitic interstitial keratitis. *Am J. Syph.* 35:525-532, 1951.
A preliminary report of the efficacy of cortisone in the treatment of syphilitic interstitial keratitis.
397. Cutler, J. C., and A. Harris. Studies on the comparative behavior of various serologic tests for syphilis. I. A report on serologic findings among patients at beginning of therapy. *J. Ven. Dis. Inform.* 32:328-336, 1951.
Analyzes the general serologic patterns and individual variations observed in patients before and after treatment for syphilis in its early and later stages.
398. ----- R. D. Wright, R. C. Arnold, and S. Levitan. Local Herxheimer reaction following application of penicillin solution to syphilitic chancres. *J. Ven. Dis. Inform.* 32:207-208, 1951.
Describes a phenomenon which has been called the Herxheimer reaction observed following application of a solution of aqueous penicillin to darkfield-positive lesions of primary syphilis.
399. Davis, M. R., G. R. Cannefax, and E. B. Johnwick. Cerebrospinal fluid; a comparative study of specimens taken from the cisterna magna and lumbar subarachnoid space. *J. Ven. Dis. Inform.* 32:284-288, 1951.
A comparison of cell counts, total protein determinations, reagin tests and colloidal mastic tests on 102 CSF specimens obtained simultaneously from the lumbar region and the cisterna magna.
400. Doak, G. O., and L. D. Freedman. The reaction between diazonium fluoborates and arsenic trichloride in organic solvents. *J. Am. Chem. Soc.* 73:5656-5657, 1951.
Arsenic trichloride has been found to react with diazonium fluoborates in organic solvents with the production of arylarsonic and diarylarsonic acids. The ratio between the yields of these two compounds varies with the solvent and catalyst.
401. ----- and L. D. Freedman. The synthesis of arylphosphonic and diarylphosphonic acids by the diazo reaction. *J. Am. Chem. Soc.* 73:5658-5660, 1951.
Phosphorus trichloride has been found to react with diazonium fluoborates in anhydrous solvents with the production of arylphosphonic and diarylphosphonic acids.

402. Eagle, H., and G. O. Doak. The biological activity of arsenosobenzenes in relation to their structure. *Pharmacol. Rev.* 3:107-143, 1951.
A review covering the pharmacological activity of various substituted arsenosobenzenes. It is concluded that the toxicity and therapeutic activity of these compounds is determined by the amounts which enter into combination with cellular components, and the selective action is largely determined by cell permeability.
403. Freeble, C. R., Jr., and J. F. Donohue. Syphilis and gonorrhea as causes of blindness; a study of persons declared legally blind in Ohio. *J. Am. Med. Assoc.* 146:1500-1506, 1951.
Reports on the role of syphilis and gonorrhea as etiological factors among persons declared legally blind in Ohio, other aspects of syphilis and gonorrhea in blindness, including the topographical and pathological classifications of persons whose blindness was caused by venereal disease, race and sex distribution of the venereal blind, and observations on the age at which such persons become blind.
404. Gray, A. L., T. J. Bauer, Lida J. Usilton, and R. O. Carlson. Case-finding through an understanding of known syphilitic patients. *J. Ven. Dis. Inform.* 32:114-119, 1951.
Summarizes the results of an intensive study of 500 Negroes with infectious syphilis living in an area with a high prevalence of venereal disease. It reports on the reasons why some of them volunteered for diagnosis of their infections and why others did not and suggests ways in which more non-volunteers may be persuaded to seek medical diagnosis.
405. Harb, F. W., W. G. Simpson, and C. E. Wood. Intramuscular injections of chloromycetin in the treatment of granuloma inguinale. *J. Ven. Dis. Inform.* 32:177-183, 1951.
A report on the treatment of 43 patients with granuloma inguinale by intramuscular injections of chloromycetin.
406. Harris, A., and H. N. Bossak. A rapid method for performing quantitative tests for syphilis in large-scale testing programs. *J. Ven. Dis. Inform.* 32:203-206, 1951.
Describes rapid method for performing quantitative slide tests for syphilis in large-scale testing programs and discusses its applicability for quantitating reactive serums in serologic tests for syphilis or for other diseases.
407. ----- Virginia L. Harding, and H. N. Bossak. Serum standards for serologic tests for syphilis. *J. Ven. Dis. Inform.* 32:310-318, 1951.
Describes method for preparing dehydrated human serums that will serve as regular controls for serologic tests for syphilis and act as a rule or guide for maintaining these tests at constant levels of reactivity.
408. Iskrant, A. P., Q. R. Remein, and J. F. Donohue. Evaluation of anti-syphilitic therapy with intensive follow-up - statistical method of analysis and its critical evaluation. *J. Ven. Dis. Inform.* 32:371-375, 1951.
Describes the statistical method of analysis of the effectiveness of treatment for syphilis and the effect of incomplete observation on the results.

409. Johnwick, E. B. Method of treatment of early latent syphilis and late latent syphilis. In H. F. Conn, ed. Current Therapy. W. B. Saunders Co., Philadelphia. p. 369-370, 1951.
Presents acceptable schedules of treatment for syphilis using penicillin preparations.
410. Magnuson, H. J., Barbara J. Rosenau, and B. G. Greenberg. The effects of sex, castration, and testosterone upon the susceptibility of rabbits to experimental syphilis. Am. J. Syph. 35:146-163, 1951.
Demonstrates the interaction of several hormonal factors on the resistance of animals to experimental syphilis.
411. ----- and F. A. Thompson, Jr. Heterologous strain immunity in experimental syphilis. J. Immunol. 67:35-40, 1951.
Demonstrates that significant heterologous strain immunity develops during the course of the experimental infection but that this immunity is less than that produced against homologous strains.
412. ----- F. A. Thompson, Jr., and Charlotte P. McLeod. Relationship between treponemal immobilizing antibodies and acquired immunity in experimental syphilis. J. Immunol. 67:41-48, 1951.
Demonstrates that the measurement of circulating treponemal immobilizing antibodies is an unsatisfactory measure of acquired immunity in syphilis.
413. McLeod, Charlotte P., and R. C. Arnold. A comparison of two methods of gland transfer in experimental syphilis. J. Ven. Dis. Inform. 32:96-98, 1951.
Demonstrates that a larger number of positive node transfers was obtained by transfer to the scrotum than by transfer to the testicle of normal rabbits.
414. ----- and R. C. Arnold. A study of immunity in experimental syphilis as demonstrated by contact exposure challenge. J. Ven. Dis. Inform. 32:279-283, 1951.
Reports that a high degree of immunity may be demonstrated in early syphilis of the rabbit by means of contact exposure challenge.
415. ----- and H. J. Magnuson. A study of cross immunity between syphilis and yaws in treated rabbits. J. Ven. Dis. Inform. 32:305-309, 1951.
Demonstrates that in treated infections the degree of cross protection between syphilis and yaws is relatively small.
416. ----- and H. J. Magnuson. Development of treponemal immobilizing antibodies in mice following injection of killed treponema pallidum (Nichols strain). J. Ven. Dis. Inform. 32:274-279, 1951.
Reports the production of treponemal immobilizing antibodies in normal mice by the injection of killed antigens.
417. Morse, J. W., and A. P. Iskrant. Syphilis casefinding through education. J. Ven. Dis. Inform. 32:150-157, 1951.
Study of characteristics and attitude of volunteers for diagnosis and non-volunteers to aid in designing public education for casefinding.

418. Romansky, M. J., S. Olansky, S. R. Taggart, G. S. Landman, and E. D. Robin. Chloromycetin (chloramphenicol) in the treatment of various types of syphilis. *Am. J. Syph.* 35:234-239, 1951.
Presents clinical and serologic evaluation of 103 patients with syphilis, treated with varying dosages of chloromycetin determined on a basis of milligrams per kilogram of body weight.
419. Simpson, W. G., and Virginia Murphy. Needed - Better preparation for venereal disease nursing. *Am. J. Nursing* 51:586-587, 1951.
Describes an affiliation program in venereal disease nursing for nursing students.
420. ----- B. F. Rosenblum, C. E. Wood, and E. L. Stammer. Local cortisone acetate therapy in congenital syphilitic interstitial keratitis. *J. Ven. Dis. Inform.* 32:116-119, 1951.
Describes method for treating interstitial keratitis with local cortisone as an eye drop and gives several illustrative case reports.
421. Stout, Genevieve W., and J. C. Cutler. Serology problems (syphilis) in Central America. *J. Ven. Dis. Inform.* 32:237-241, 1951.
Presents statistical data that show the reactivity of the serologic test for syphilis on the basis of lipoid antigens and cardiolipin in Central America and Panama and describes the control and research program of Guatemala and the Pan-American Sanitary Bureau Office.
422. ----- and J. C. Cutler. Problemas serologicos en Centro America. *Bol. Ofic. san panam.* 30:321-329, 1951.
423. Tauber, H. Synthesis of protein-like substances by chymotrypsin. *J. Am. Chem. Soc.* 73:1288-1290, 1951.
Describes how high molecular-weight (250,000-500,000), protein-like substances were obtained at a physiological pH by the action of chymotrypsin of peptic digests of various proteins.
424. ----- Synthesis of protein-like substances by chymotrypsin from dilute peptic digests and their electrophoretic patterns. *J. Am. Chem. Soc.* 73:4965-4966, 1951.
Electrophoretic studies have shown that the high molecular weight protein-like substances produced by chymotrypsin from peptic digests of proteins are of a well-defined chemical nature, and the effect of neutral salts on the synthetic and hydrolytic action of chymotrypsin has been studied.
425. ----- Charlotte McLeod, W. Garson, and H. J. Magnuson. Spirocheticidal activity of plasma and serum fractions. *Proc. Soc. for Exper. Biol. & Med.* 78:110-112, 1951.
Out of eight fractions of serum and plasma, most of the spirocheticidal activity was found to be present in the seventh and eighth fractions (fraction III-1,2, Cohn, and fraction I / III-3, Cohn).
426. Thompson, F. A., Jr., and H. J. Magnuson. Studies on increasing the sensitivity of the treponemal immobilization test for syphilis. *Am. J. Syph.* 35:21-34, 1951.
Reports the effect of varying concentrations of complement and of

serum on the sensitivity of the treponemal immobilization test.

427. Usilton, Lida J., and R. J. Lugar. Evaluation of antisyphilitic therapy with intensive follow-up. IV. Case holding for post treatment observation. *J. Ven. Dis. Inform.* 32:375-379, 1951.

The case holding method usually employed by the Division of Venereal Disease in therapy-evaluation studies consists of 1) educating the patient in the importance of posttreatment observation before his discharge from the treatment facility, and 2) sending form letters to remind the patient when examinations are due. Over an average of 37.7 posttreatment months, 89.6 percent of selected patients were still under observation and 90.7 percent of scheduled observations had been completed.

428. Williamson, W. T., and C. J. Winter. Reversible cerebral atrophy. *J. Kansas Med. Soc.* 52:107-109, 1951.

Describes pneumoencephalographic changes in 4 year old colored boy with encephalitis which appeared to represent reversible cortical atrophy.

429. Wright, R. D., J. D. Thayer, F. P. Nicholson, and R. C. Arnold. Penicillin levels in spinal fluid after intramuscular injection of procaine penicillin. *J. Ven. Dis. Inform.* 32:39-42, 1951.

Significant amounts of penicillin can be detected in the spinal fluid of a large percentage of patients after the intramuscular injection of procaine penicillin.

430. Zarafonitis, C. J. D., E. B. Johnwick, L. W. Kirkman, and A. C. Curtis. Para-aminobenzoic acid in dermatitis herpetiformis. *Arch. Dermat. & Syph.* 63:1-18, 1951.

A review of 16 patients with dermatitis herpetiformis treated with para-aminobenzoate salts. All experienced partial or complete suppression of the disorder while on such compounds.

431. Zises, M., and G. C. Smith. Granuloma inguinale and its treatment with oral aureomycin. *Arch. Dermat. & Syph.* 62:642-647, 1950.

Describes granuloma inguinale with reference to clinical appearance, diagnostic methods, and results of treatment with oral aureomycin.

432. ----- and G. C. Smith. Nine cases of granuloma inguinale treated with chloromycetin. *Am. J. Syph.* 35:294-296, 1951.

Describes the results in the treatment of nine cases of granuloma inguinale with chloromycetin.

National Office of Vital Statistics

433. Aune, Hazel V. Public health conference on records and statistics. *Canad. J. Pub. Health* 42:512-20, 1951.

Describes the historical background, objectives, philosophy, organizational structure, and working methods of the Public Health Conference.

434. Dunn, H. L. Vital statistics. American Year Book, 1951. p. 666-674.
Discusses recent developments in vital statistics and registration practices with summary statistical tables.
435. ----- Vital statistics. Collier's Year Book, 1951. p. 712-716.
Discusses recent developments in vital statistics and registration practices with summary statistical tables.
436. ----- and Evelyn H. Halpin. Fire casualty statistics. Nat. Fire Protection Assoc. Quart. 45:45-55, 1951.
Presents data principally for 1948, on the annual loss of life from fire and accidental burns in the United States, and discusses variations in mortality by State, age, sex, and race. Includes references to surveys of frequency of nonfatal burns and points to the need for basic definitions of fire and fire injuries.
437. Greville, T. N. E., and G. A. Carlson. Estimated average length of life in the death-registration states. Vital Stat. Spec. Rep. 33:163-170, 1951.
Gives estimated values of the average length of life in the United States death-registration States for each year from 1900 to 1948 by race and sex and explains the methods for making the estimates.
438. Halpin, Evelyn H., and O. D. Turner. Tuberculosis mortality in the United States, 1949 (with provisional figures for the first 11 months of 1950). Pub. Health Rep. 66:547-560, 1951.
Presents data from 10-percent sample of death certificates on tuberculosis mortality in the United States by age, sex, and race in 1949 and estimates by age and geographic region for the first 11 months of 1950. Discusses the changes and factors which affect the comparability of these data with those for earlier years and gives provisional comparability ratios.
439. Kurland, L. T., and I. M. Moriyama. Certification of multiple sclerosis as a cause of death. J. A. M. A. 145:725-728, 1951.
Estimates that multiple sclerosis as a cause of death was overstated by about 18 percent in the official statistics for the United States and Canada in 1947 because of recording such terms as cerebral sclerosis and general sclerosis as multiple sclerosis. Correct use of medical terms and greater care in medical certification will provide more accurate statistics.
440. Moriyama, I. M. Recent mortality trends and differentials. J. Am. Statist. Assoc. 46:213-219, 1951.
Study of death rates during the past decade indicates that mortality experience was extremely favorable. The declining mortality was probably accelerated by better nutritional status of the general population because of increased prosperity, widespread use of antibiotics, and intensification of public health activities.
441. ----- and T. D. Woolsey. Statistical studies of heart disease. IX. Race

and sex differences in the trend of mortality from the major cardiovascular-renal diseases. Pub. Health Rep. 66:355-368, 1951.

Examination of death rates by age, race, and sex for the major cardiovascular-renal diseases shows an increase in mortality among white males in the productive ages (35-64 years) in contrast to the marked reduction in the same age groups among white females, and, to a lesser extent, among nonwhite males and females.

Division of Water Pollution Control

442. Bacon, V. W., F. E. DeMartini, and R. R. Harris. Water pollution legislation and administration in nine western States. Indust. & Engin. Chem. 43:2678, 1951.

Presents digest of existing water pollution statutes and regulations and administration thereof in Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.

443. Diashichin, A. N., and W. N. Grune. Report on the counting of radioactive sewage in connection with B.O.D. determinations. Progress Report to U.S.A.E.C. NY00-1540, (NYU-7), Feb. 1951.

Presents statistical procedures employed in the analysis of radioactive liquid counting data and applications of Student's test, correlation analysis and the Chi square test. Quantitative absorption of radiophosphorus (P^{32}) by algae was also studied.

444. Dobbins, W., W. N. Grune, R. Ehrenreich, and G. P. Edwards. Final report on effect of radioisotopes on B.O.D. Final Progress Report to U.S.A.E.C. NY00-1603, (NYU-8), Sept. 1951.

A report of a three-year investigation of the effects of radiophosphorus P^{32} and radioiodine I^{131} on the biochemical oxidation reactions of sewage, including such other effects as on ammonia, nitrites, nitrates and bacterial densities. Final progress report to U.S.A.E.C. of 3-year contract.

445. Ferguson, F. F., and Yu-Ching Chen. Histology of the excretory system of the swine nematode, Ascaris lumbricoides. Am. Microscopical Soc. Tr. 70:257-264, 1951.

The "excretory system" was not found to be unicellular (i.e., controlled by a single "giant nucleus") but was shown to be multicellular by the presence of numerous anterior ganglionic cells in the tubule walls above the level of the "arcade." A somewhat evenly spaced series of nuclei occurred in the chordal syncytium in very close relationship to the excretory tubules. This series was located between clumps of much smaller nuclei in the same plane just under the body wall. These syncytial nuclei were definitely not a part of the excretory system. The "arcade" was a simple transverse tube without nuclei in this species.

446. Fish, F. F. Pollution in the lower Columbia Basin with particular reference to the Willamette River. U. S. Fish and Wildlife Service

Spec. Scient. Report, Fisheries No. 30, 1950. 22 p.

A survey of current pollution in the lower Columbia River basin and a report of field studies made in the Willamette Valley.

447. ----- and R. A. Wagner. Oxygen block in the main stem Willamette River. U. S. Fish and Wildlife Service Spec. Scient. Report, Fisheries No. 30, 1950. 19 p.

A report upon studies of the conditions under which water pollution renders the lower main stem Willamette impassable to migratory fishes because of low oxygen.

448. Grune, W. N. Design of radiological laboratory. Progress Report to U.S.A.E.C., NYOO-1516, (NYU-6), May 1950.

Describes detailed plans and specifications of stainless-steel hoods, special remote-control equipment used in the conduct of the research. The entire laboratory investigation and B.O.D. manipulations were placed into a "closed system" with exhaust ventilation to protect the personnel and minimize contamination.

449. ----- Design of radiological laboratory for sanitary engineering research. Mod. Sanitation 2:22, 1950.

Points out some of the hazards and necessary precautions when working with radioisotopes in liquid solutions. Shows how some inherent difficulties were overcome.

450. ----- Experimental break-point chlorination and anti-corrosion control at Maynard, Massachusetts. J. New England Water Works Assoc. 65:17-70, 1951.

Presents a practical application of the Langelier or Ca CO_3 saturation index for corrosion control with a typical soft New England lake water supply. Describes control of *Leptothrix* and *Crenothrix* by break-point chlorination.

451. ----- R. Eliassen, T. Jaffe, A. N. Diashichin, and M. M. Luckens. Biochemical oxygen demands of radioactive sewage (I). Progress Report to U.S.A.E.C., NYOO-1510, (NYU-5), March 1950.

Some results of the effect of radiophosphorus (P^{32}) on the biochemical oxygen demand of sewage in terms of the reaction velocity constant are shown by several analyses. Both first and second stage observations are included but the results are not significant.

452. ----- and R. Eliassen. Studies on the effect of radioactive phosphorus (P^{32}) on the biochemical oxidation of sewage. Sew. & Indust. Wastes 23:141-153, 1951.

Radioactive phosphorus (P^{32}) in concentrations at or below 10 millicuries per liter exerts no significant effect on these parameters of the first stage of the biochemical oxidation of sewage: (a) reaction velocity constant, k , (b) ultimate first-stage B.O.D., L , and (c) 5-day B.O.D., y_5 .

453. ----- and P. Klevin. Redesign of a sanitary engineering laboratory to permit the use of radioisotopes. Nucleonics 9:59-64, 1951.

Describes the conversion of an existing sanitary engineering research

laboratory to handle millicurie quantities of radiophosphorus (P^{32}) and radioiodine (I^{131}). It is demonstrated that the costs for conversion are nominal to effect personnel protection and safety over a period of three years.

454. Hand, C., and W. M. Ingram. Natural history observations on Prophysaon Andersoni (J. G. Cooper), with special reference to amputation. Bull. South. California Acad. Sc., 49:15-28, 1950.

The concern of this paper is the process of autotomy and regeneration as it may relate to the protection of Prophysaon Andersoni against predators. A histological study of the amputation mechanism is included. General ecological relationship of P. Andersoni are discussed.

455. Hayes, W. J., Jr., F. F. Ferguson, and J. S. Cass. The toxicology of dieldrin and its bearing on field use of the compound. Am. J. Trop. Med., 31:519-522, 1951.

On the basis of extensive animal experiments and clinical examination of workers who carried out limited field operations, it is concluded that on vector control programs, dieldrin can be used safely as an outside residual spray by appropriately trained personnel.

456. Hollister, W. G., Eva F. Dodge, H. G. Ogden, and others. Education for responsible parenthood. Health Publications, Inc., Raleigh, N. C., 1950. 80 p.

Background readings and manual for discussion leaders in parent education groups.

457. Hopkins, G. J. Some public health implications of the Missouri Valley development program. Am. J. Pub. Health 40:917-922, 1950.

The far reaching water resource development program is of interest to health agencies. Water supply and pollution problems are affected. Mosquito prevention should receive attention. The use of polluted waters for irrigation of truck crops poses a problem. While conceived and economically justified in terms of physical resources, the plan holds promise for a more healthful environment as a secondary benefit.

458. Ingram, W. Living Cypraeidae of the Western Hemisphere. Bull. Am. Paleontology 23(136):1-54, 1951.

Presents the general ecology and systematics of the Cypraeidae of the Western Hemisphere.

459. ----- Studies on western land mollusks. Am. Philosophical Soc. Year Book 1949:159, 1950.

Presents a progress report on a systematic-ecological study of western land mollusks.

460. ----- and C. Lotz. The land mollusks of the San Francisco Bay counties. J. Ent. & Zool. 41:1-21, 1949, 42:5-27 and 42:20-39, 1950.

Presents the general systematics of land snails of the San Francisco Bay Area and ecological notes on habitat.

461. Irvine, P., and H. G. Ogden. Moving facts into action. Resources-Use Education 5(1):4-5, 1950.
Discusses the work of the Research Interpretation Service in getting scientific information to adults of relatively low literacy levels.
462. ----- and H. G. Ogden. The school and community social organizations. School Executive 69(10):59-60, 1950.
Describes the role of the school as coordinator of the social resources of the community.
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